

REMARKS

Claims 1-16, 18 and 19 are pending. The Examiner's reconsideration of the rejection is respectfully requested in view of the amendments and remarks.

Applicants appreciate the Examiner's indication that Claim 17 is objected to as being dependent upon a rejected based claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and rewritten to overcome the rejection(s) under 35 USC 101.

Claims 1-20, 22-24 and 26-27 have been rejected under 35 USC 101 as being directed to non-statutory subject matter. The Examiner suggested that Claims 1-20, 22-24 and 26-27 are directed to non-statutory subject matter.

Claim 1 claims, *inter alia*, "a convex container module determining at least one solution corresponding to a selected convex container shape from the plurality of candidate solutions, wherein the convex container module determines a solution that maximizes a measure representing the equality between the set of points in the given candidate solution and the set of points included in the solution, given the selected convex container shape; and a solution evaluation module determining a strength metric for each solution determined by the convex container module, the search module selecting and storing to the memory device a solution having a desirable strength, wherein the solution having the desirable strength indicates a dominant cluster in the input data."

Referring to Claim 1 In *Diamond v. Diehr*, 450 U.S. 175, 209 USPQ 1 (1981), the Court noted, "when [a claimed invention] is performing a function which the patent laws were

designed to protect (e.g., transforming or reducing an article to a different state or thing), then the claim satisfies the requirements of Section 101.” *Diehr*, 450 U.S. at 192. In Claim 1, a solution is selected which indicates a dominant cluster in the input data - the solution is determined from input data. Therefore, Claim 1 is believed to be a useful, tangible and concrete result of the application of the claimed limitations. For example, consider the following:

“[T]ransformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces ‘a useful, concrete and tangible result’ -- a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.” *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601.

It is important to note that a resulting use of the final share price for recording and reporting purposes, etc., is not recited in the claims of the patent at issue in *State Street*. It is enough for the result, e.g., a final share price or a solution selected which indicates a dominant cluster in the input data stored to the memory device, to be useful. A limitation explicitly claiming a use of the result is not needed to satisfy the requirements of 35 USC 101. Therefore, Claim 1 is believed to be directed towards statutory subject matter.

Further, the claimed solution is believed to be a transformation and reduction of input data on occurrences of a phenomenon and characteristics at a plurality of locations and times, and therefore, is believed to satisfy the requirements of Section 101.

Referring now to the rejection of Claims 1-19, which states essentially that Claims 1-19 are drawn to nonstatutory descriptive material; Claim 1 claims, *inter alia*, “A system for detecting clusters in space and time using input data on occurrences of a phenomenon and characteristics at a plurality of locations and times comprising: a memory device for storing computer readable program data executable by a processor in communication with the memory device, the machine-readable program data...a solution evaluation module determining a strength metric for each solution determined by the convex container module.” Claim 1 includes a memory device for storing computer readable program data executable by a processor. Therefore, Claim 1 is believed to be directed to statutory subject matter.

Claims 2-16, 18 and 19 depend from Claim 1. Claims 2-16, 18 and 19 are believed to be allowable for at least the reasons given for Claim 1. Claims 17 and 20-27 have been cancelled.

The Examiner’s reconsideration of the objection is respectfully requested.

Claims 1-2, 4-16, 18-20, 22-24, 26 and 27 have been rejected under 35 U.S.C. 102(b) as being anticipated by Glaz et al. (Scan Statistics and Applications). The Examiner stated essentially that Glaz teaches all the limitations of Claims 1-2, 4-16 18-20, 22-24, 26 and 27.

Claim 1 has been amended to include the allowable limitations of Claim 17. Therefore, Claim 1 is believed to be in condition for allowance.

Claims 2, 4-16, 18 and 19 depend from Claim 1. The dependent claims are believed to be allowable for at least the reasons given for the respective independent claims. Claims 20, 22-24, 26 and 27 have been cancelled. The Examiner’s reconsideration of the rejection is respectfully requested.

Claims 3, 21 and 25 are rejected under 35 USC 103(a) as being anticipated by Glaz. The Examiner stated essentially that Glaz teaches or suggests all the limitations of Claims 3, 21 and 25.

Claim 3 depends from Claim 1. Claim 3 is believed to be allowable for at least the reasons given for Claim 1. Claims 21 and 25 have been cancelled. Reconsideration of the rejection is respectfully requested.

For the forgoing reasons, the present application, including Claims 1-16, 18 and 19, is believed to be in condition for allowance. The Examiner's early and favorable action is respectfully urged.

Respectfully submitted,

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